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ABSTRACT

The purpose of this study was to determine if the segregation of first grade children from second and third grade children resulted in improved vocabulary skills and reading comprehension skills for beginning second graders. From two carefully prescribed populations of children--one which had attended Curry School in Tempe, Arizona, from the beginning of first grade in 1971, and one which began first grade at Curry in 1972--two randomly selected groups were drawn. The Gates-MacGinitie Reading Test Primary Form B had been administered to each of these groups at the beginning of their second grade year. The means of the raw scores on each of two subtests, vocabulary and comprehension, were compared and tested for significance by the t-test. The computed data did not show a statistically significant difference in the measured reading skills of the two groups. It was concluded that the organizational plans, multiple grade primary team and segregated first grade team, did not affect first grade reading progress. (WR)

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MULTIPLE GRADE PRIMARY VERSUS SEGREGATED FIRST GRADE: EFFECTS ON READING ACHIEVEMENT

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PREFACE

Blessed is the child to whom reading comes almost as naturally as breathing. And fortunate is the other child who is given the environment, materials,patience,and encouragement to provide him with the skills which open the doors to all of his future learning experiences.

TABLE OF CONTENTS

PAGE

PREFACE ii

LIST OF TABLES...:.....v

CHAPTER

I. INTRODUCTION.....1

I. PROBLEM.....1

II. PURPOSE.....2

III. HYPOTHESES.....;.....2

IV. STATEMENT OF ASSUMPTIONS.....3

V. DEFINITION OF TERMS.....3

VI. LIMITATIONS.....4

II. REVIEW OF RELATED LITERATURE.....6

I. INTRODUCTION.....6

II. THE NON-GRADED SCHOOL.....6

III. MULTIPLE GRADED EDUCATION.....11

IV. TEAM-TEACHING.....13

V. ALTERNATE READING PROGRAMS.....14

VI. SUMMARY.....20

III. METHODS AND PROCEDURES.....21

I. DESCRIPTION OF SUBJECTS AND SELECTION.....21

II. DESCRIPTION OF INSTRUMENT.....22

III. DATA COLLECTION PROCEDURE.....24

IV. RESEARCH DESIGN AND PROCEDURE.....24

IV. FINDINGS.....26

I. ANALYSIS TECHNIQUES.....26

II. FINDINGS.....29

CHAPTER

V. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS.....30

I. SUMMARY.....30

II. CONCLUSIONS.....31

III. RECOMMENDATIONS.....32

BIBLIOGRAPHY.....33

APPENDIX.....37

LIST OF TABLES

TABLE I. Reliability of Gates-MacGinitie Reading Test.....23

TABLE II. Comparison of Means.....28

TABLE III. Raw Scores and Grade Equivalents
Gates-MacGinitie Reading Test.....37

TABLE IV. Detailed Raw Scores and Computed Data.....38

CHAPTER I

INTRODUCTION

I. PROBLEM

To give a child a solid foundation of reading skills on which to build his future learning is a prime objective for the first grade. It was toward this goal that the faculty and administration of Curry Elementary School in Tempe, Arizona reorganized its primary grades.

Prior to the school year beginning in August, 1972, all of the children in grades one through five were assigned to multiple grade teams. The primary teams consisted of grades one, two, and three. Each team had two teachers and two instructional aides with seventy to ninety children. Reading instruction was provided by homogeneously regrouping all of the primary children. Each Curry teacher, along with one aide, was assigned to a specific reading level. The children could progress within the originally assigned group, or be moved from one teacher-group to another, either up or down, depending on individual needs.

Following three years of this organizational plan, it was decided to separate the first grades from the primary teams. They were placed in two teams of fifty to sixty students, each with two teachers and two aides. The second

and third graders continued in the multiple graded program. All reading instruction was handled within the teams. Intra-team groups were formed according to readiness or reading ability. It was felt that all primary children would benefit from this change, particularly the first graders.

II. PURPOSE

The purpose of this study is to determine if, in fact, the segregation of first grade from the second and third has resulted in an improvement of the vocabulary and reading comprehension skills of beginning second graders at Curry School.

III. HYPOTHESIS

Observation of the reading behaviors of beginning second graders who came from both organizational plans leads to the following two hypotheses:

1. Second graders, having spent their first year in a segregated first grade, possess greater vocabulary recognition skills than second graders coming from a multiple grade team.

2. Second graders, having spent their first year in a segregated first grade, possess greater reading comprehension skills than second graders coming from a multiple grade team.

IV. STATEMENT OF ASSUMPTIONS

1. The first year of reading instruction lays the foundation for the success of future learning experiences.
2. It is the responsibility of each school, faculty and administration, to seek the best organizational plan for its students.
3. The Gates-MacGinitie Reading Test, Primary Form B, used as a testing instrument for all second graders at Curry School, is considered to be appropriate for this study as it has had its norms established on a nation-wide basis.

V. DEFINITION OF TERMS

1. Instructional Aide: A non-certified adult who gives some small group and individual instruction under the supervision of the teacher. He or she also helps with the clerical duties associated with classroom or team management.
3. Open Concept: An instructional program whereby each child is allowed to progress at his own rate (sometimes referred to as non-graded)
4. Team: For the purpose of this study a team shall be considered to be as it is at Curry School: a group of fifty to seventy-five children with two teachers and two instructional aides.

5. Segregated first grade:For the purposes of this study, a segregated first grade shall be considered to be as it is at Curry School: a team of fifty to sixty first graders with two teachers and two instructional aides.

VI. LIMITATIONS

This study does not intend to prescribe for all schools any one suitable organizational plan for teaching reading to first graders. It can only examine the comparative success of the two plans that have been in effect at Curry School.

Curry draws from a middle and upper-middle socio-economic community with few minority representatives in its population. The forty children used in this study all began first grade at Curry either in 1971 or in 1972. They remained in attendance through the end of the immediately concluded school year, 1974.

All children, regardless of group, have been taught reading by a multi-text approach, the materials being adapted to the needs of the individual. Children are allowed to progress at their own rates, whether faster or slower than the grade-level expectations. By the end of the first grade, some children may be reading at a third grade level and some may still be using pre-primer materials. This approach to reading existed with the multiple grade organi-

zational system and continues in the segregated first grade.

Although the results of this study cannot be generalized to all schools, they could perhaps, be considered in a school with similar population and philosophy of reading instruction.

CHAPTER II

REVIEW OF RELATED LITERATURE

I. INTRODUCTION

There is an abundance of literature relating to the nongraded school, multiple grade grouping, team-teaching, and alternative types of reading programs. However, there seems to have been no attempt to test, specifically, the difference in reading achievement between children from a multiple grade, team-taught, open concept first grade and children from a segregated, team-taught, open concept first grade.

The bulk of the literature studied seems to point out that reading achievement at the first grade level is affected very little by classroom organization or by teaching method. As stated by Austin(2):

> " ..... there is no single best way to teach reading. Instead, children learn to read equally well with very different teaching methods. The truly important factor .....is the quality of the teacher."

Alternatives in organization simply permit good teachers to exercise greater choice for individuals.(2)

II. THE NONGRADED SCHOOL

Nongraded education has been defined by Anderson (1) as being two-dimensional: philosophical, guiding the behavior of the staff toward the pupils; and administrational,

organizing the machinery and procedures whereby the life of the students is regulated and facilitated. There must be an emphasis on individualizing instruction in order to develop each individual up to his full potential. Provisions are made to accommodate rate of growth by providing appropriate programs.

Salter and Lorenre (21) emphasize that while in a nongraded program, there are no grades, as such, the curriculum is organized in sequential work units of achievement, not of time. They also encourage intra-class grouping.

Halliwell (8) compares nongraded education to graded programs by looking at ability grouping. He sees interclass and intra-grade grouping as features of a nongraded program, in areas such as reading, whereas the graded structure features intra-class ability grouping. Accommodations for ability differences are made in both types of structures at the lower levels, but he points out that rarely is a child permitted to work several years above grade norms in a graded program.

Advantages of a Nongraded Program

Enforced individualization, easier discipline, and more cooperation are some of the advantages of the nongraded structure.(14) It is closer to a real life situation, encouraging leadership of the older students and independence and initiative for all.

In an attempt to discover if there was a difference in mental health and academic achievement in graded and ungraded schools, Buffie (4) tested graded control groups and ungraded experimental groups. In three of the tests for academic achievement his findings showed significant difference at the .01 level, favoring the ungraded groups. Two of the mental health tests showed a significant difference at the .05 level, again favoring the ungraded. The balance of the eleven tests showed no significant difference between the two organizational systems. The researcher generalized from these test results that the ungraded program is conducive to higher achievement and better general adjustment.

Killough (12) agrees that the ungraded program has advantages. Pre and post test achievement data was collected on three hundred randomly selected elementary school children over a period of three years. The children thus selected were then divided by sex and year in school. Half were enrolled in a nongraded program and half in a traditionally graded school.

A multivariate analysis of variance design was used to analyze the effects of the programs on the achievement gains made in arithmetic, reading comprehension and vocabulary.

The findings of this study suggest that pupils remaining in an ungraded program for three years will have significantly higher mean achievement gains in most cognitive areas than will pupils in a graded program.

Halliwell (8) claims clear cut superiority for nongraded pupils over graded pupils at the first grade level. Having administered the Word Knowledge and Reading Comprehension sections of the California Achievement Test to every first grader in a newly formed nongraded program, he compared the scores with scores achieved on the same test by first graders from the previous year's traditional program. All children involved attended the same school and were given the test at the same time during the year. (June 1960 and June 1961)

Equivalence of the two groups was established and the achievement test scores were compared and analyzed by the t-test. There was a significant difference at the .01 level favoring the ungraded program.

Negative Evidence

In her comparative study of pupil progress in ungraded and graded primary programs, Ross (20) selected three hundred fourteen children, one hundred twenty-eight in a nongraded program and one hundred eighty-six in a graded program, to determine the differences in academic achievement, mental health, and social adjustment. Using the Metropolitan Achievement Test, alternate forms, to test the beginning and ending academic achievement, she found that 63.5 percent of the differences between the adjusted mean scores slightly

favored the graded six-year old. There was no statistical difference, however.

At the Powel Elementary School, Pittsburgh, Pa., Brown and Theimer (3) revealed that after two years of a nongraded program the younger students (fourth year) seemed not to do as well as the students in their sixth year of school, especially those with above average ability. Brown points to Piaget's theory of cognitive development to explain this difference. He feels that the fourth year students are still in the "concrete operations"stage and are still thinking in concrete terms. Therefore,they need a more structured environment to give them skills necessary for the abstract reasoning that will come later in their development.

Implications of Nongrading

Although there is much evidence supporting the nongraded programs, they require some special care in their implementation. Hunter (10) states three fundamantal requisites for success in nongrading:

1. An ungraded program must accommodate individual differences.

2. Materials must be appropriate.

3. Students must be challenged. "It is wasteful to idle a child's mind while others catch up."

In order to meet these criteria, teachers are forced

to assume more responsibility to provide appropriate learning opportunities.

III. MULTIPLE GRADED EDUCATION

Multiple grading is closely related to the nongraded form of education in that it combines children of several ages into one class or group. It provides a natural grouping of children as in play or other reality situations.(16) It provides an opportunity for an individual child to experience change in social position. He can be a leader of younger children or a follower of older ones. The child can turn to other children as "resource persons". The difference from nongrading is found only in the fact that the child retains his grade identity within the larger group.

In order to be fully effective, groups must be flexible enough to insure that each child contributes to and benefits from interaction with many different personalities. (16:5) It is suggested that society is not rigidly grouped according to age and that its' problems must be attacked by multi-age groups, rather than by separating and pitting one against another.

In a multiple grade classroom "no child has to wait a year to learn what he wants to know now". (16:12) The teacher becomes the director of an educational laboratory. The children themselves do the exploring, experimenting, and

finding (16:22) The teacher is a diagnostician and a consultant to each child.

Effects on General Achievement, Personality, and Social Development

The effects of multiple grading was tested by Chace (5) in a multiple graded campus lab school. He matched his experimental group with children in traditionally graded public schools. Matching was done on sex, age(six month tolerance), IQ (five point tolerance), grade placement, socio-economic status, and similar training of teachers. There were three teachers involved in the experimental group and fifty-seven in the control.

The children were tested with the Lorge-Thorndike Intelligence Tests, the Stanford Achievement Test, and the California Test of Personality.

Chace found that multiple grade grouping offers a slight, consistantly positive, though not statistically significant academic advantage. It also offers a slight, consistently positive advantage in personality development and social development, statistically significant in five of the eight catagories tested

Effects on Reading

In an analysis of the effects of multiple grade grouping

on reading achievement, Maresh (15) compared a group of one hundred eight pupils, grades one to six, in a multiple grade program with a group of one hundred seven students in a single grade program. He hypothesized that there would be no significant difference in attitudes toward reading, change in vocabulary development or in reading comprehension between the two groups.

After a one way analysis of variance on pre and post-test data the null hypothesis was accepted. Maresh concluded that organization, structure, teaching methods, and materials were all supplemental in programs that seek to recognize individual talents and potential. He feels that the teacher, rather than the machinery of education, is crucial to learning.

IV. TEAM-TEACHING

Whether or not a child is taught by one, two, or several teachers may have an effect on his academic achievement. In a study concerning personality and achievement gains in self-contained and team-teaching classrooms, Riches (18)compared all fourth grade students in two team-teaching schools in Granite School District, Utah. The students were placed in matched pairs in order to plot academic achievement gains from fall, pre-test, to spring, post-test. Personality adjustment differences required grouping separately, from team-teaching schools and from self-contained schools. The IPAT Test was administered only once, in the spring of

the second year of the study.

Mean gains in academic achievement were computed and the Fisher "t" ratio, for testing differences in correlated means in two equal samples, was used to determine if differences were significant at the .05 level. The Fisher "t" was also used to analyze differences in the IPAT results.

Several conclusions were drawn from this study. Among these were:

1. There were no significant differences in gains made in academic achievement in science, reading, writing and social studies by either the experimental or the control group.

2. The self-contained classroom was a slightly more productive environment for all girls, and for boys and girls in the upper one-third IQ groups than a team teaching situation.

3. Boys and girls in the middle one-third IQ made about the same gains in either group.

While this was only one example of a team-teaching study, it indicates that it really makes little difference in achievement gains if a child is taught by a team or by a single classroom teacher.

V. ALTERNATIVE READING PROGRAMS

There a number of ways to look at reading programs. Not only are there many methods; e.g., basal, key-word, look-say, etc.; and many grouping patterns, but there is also more than one philosophy of the teaching of reading.

Philosophies

Ocie Dekle (6) compared two schools in Clark County, Georgia. One school, A, operated on the assumption that it should provide the optimum development for each child. There should be no forcing, but each child could work at his own pace. The other school, B, had as its prime objective, "to prepare the children for the future, to teach the child to conform, to assist him in the acquisition of specific knowledge and skills."

There were two first grades in each school, a total of ninety-six boys and girls. A pretest revealed no significant difference between the two groups.

Data was secured by: 1) testing, 2) interviews with the children, 3) observations, 4) check lists, 5) interest inventories, 6) anecdotal records, 7) case studies, 8) impression records, 9) conferences with teachers and parents, 10) school records in cumulative folders.

The findings indicated that overall achievement at school A was significantly higher than at school B. The children had developed more effective work habits and skills, a wider range of interest, more effective ways of thinking, better social adjustment, and emotional stability. The children at school A also read more and exhibited significantly greater speech improvement.

Grouping for Reading

Among several alternatives for reading grouping is one studied by Walter(22). She chose to determine if there are any differences in reading achievement of first grade children if they are grouped according to sex, and to determine if these groups vary in attitude toward school, learning, and new experiences. If so, how will this change in attitude affect reading achievement?

From a population of one hundred fifty children, one class was made up of boys, one of girls, and three, serving as control, were heterogeneously grouped according to sex. The children were chosen for these classes by random selection.

Pretests included two readiness tests and a group intelligence measure. The results of these tests and the ages of the children served as covariates on an analysis of covariance. Dependent variables were the scores of two reading achievement tests and an attitudinal measure. Interactions were computed and an analysis of covariance used to determine the significance of differences in reading achievement and attitude. A Pearson product moment correlation coefficient determined the degree of relationship between reading achievement scores and the results of the attitudinal measure.

Review of the data produced the following conclusions:
1) There was no significant difference in reading achievement for girls, but there was a significantly lower result in attitude for the class of all girls.
2) There was no significant difference in either reading achievement or in attitude level for boys.

The most usual means of grouping for reading is by ability. Quandt (17) emphasizes that such grouping may be damaging to self-concept. When groups are formed according to ability it is not easy to disguise the differences between them. Rather, it is the teacher's attitude toward the child that protects his self-concept. When using ability grouping it is unwise to have competition between groups or to use threats, e.g., "I'll move you down if you don't .....!" Ability grouping is the logical way for the teacher to present suitable material as it is needed.

Initial Approaches to Reading Instruction

There has been much controversy about the "best" way to teach reading. As new programs come along they are tried, seem to exhibit great success, used a while, and as soon as they become the "familiar way", they seem to have no more success than those that have gone before.

Lawrence Hartlage (9) felt that there was a need to test three reading programs; phonic, look-say, and a special

alphabet approach with first grade children from a suburban school district. His choice of district stemmed from the fact that he felt previous studies of this kind had concentrated on low economic groups and on children with reading difficulties.

After using Metropolitan Readiness Tests to establish initial levels of reading readiness, each class was taught by one of three methods. At the end of the year, each child was tested by the Wide Range Achievement Test. A modified version of the WRAT was used to test one-half of the special alphabet group.

When the data was analyzed it was found that there were significant differences between the WRAT scores of children taught by the three methods. Children taught by the special alphabet approach scored highest, the phonic approach was next, and the look-say approach was lowest.

Whether or not this approach would continue to be statistically best for the type of population tested is for further testing to confirm.

Another researcher, Knight (13) compared four different beginning reading programs; language experiences, bilingual, Miami Linguistic, and Basal Reader. The children from four schools with similar populations were initially tested by the Goodenough Draw-a-man. The achievement at the end of the year was tested by the Gates-MacGinitie,Primary Form B, Reading Test. The findings in this study significantly

favored the basal reading method.

Specialized Reading Instruction

In a six month experiment in three similar schools, Huffman (11) implemented a plan whereby on group received special reading in a school clinic under a reading specialist. Another group was taught by the classroom teacher, using the reading specialist as a resource person. The third group received no aide from the reading specialist. All children in this study ranked in the low one-third IQ on a screening test. As their progress was evaluated, so was that of the upper and middle thirds of their classes.

Interestingly, the children in the test groups showed no significant differences in achievement at the end of the study. However, the children in the upper one third IQ range of the classrooms where special reading was implemented ranked significantly higher than the upper one-third of the class where there was no special instruction.

Implications

While some systems of reading instruction seem to work best for some children, there is no indication that any one program is best for all. It falls on the individual school to establish an initial teaching of reading program that works best for the greatest number of their own students.

VI. SUMMARY

The aim of a first grade reading program should be to give each child the instruction, the environment, and the materials necessary for him to develop his reading ability to his own highest potential.

The literature reveals that there are many good choices from which the schools, their administration and teachers, may select.

Repeating the admonition of Austin (2):

"There is no single best way to teach reading....."

The school must seek to find the organization, the materials, the methods, and the philosophy that best suits its own population of students.

CHAPTER III

METHODS AND PROCEDURES

I. DESCRIPTION OF SUBJECTS AND SELECTION

This was a study of two groups of first graders who had been taught reading within two different organizational plans. It dealt with one group of children who attended first grade at Curry school from August 1971 to May 1972 and another group who attended first grade at Curry school from August 1972 to May 1973.

Prior to May 1972 all of the children from grades one through five had been assigned to multiple grade teams. Beginning in August 1972, the first grades were removed from the multiple grade system and placed in segregated first grade teams. The two samples for this study were drawn from these two organizational plans.

The first sample; herein referred to as A-multiple group, was randomly selected from those children who attended first grade at Curry school from August 1971 to May 1972 and were still in attendance as of May 1974. The second sample, B-segregated, was randomly selected from those children who attended first grade at Curry School from August 1972 to May 1973, and were still in attendance as of May 1974. The last requirement for membership in the populations, attendance in May 1974, was included in order to acquire data

necessary for the study. Both samples are weighted slightly with girls, as were the populations from which they were drawn.

Despite the change in organizational plan, both groups of students have been taught in an open-concept, multi-text, team situation.

II. DESCRIPTION OF INSTRUMENT

During the first month of each school year, the Gates-MacGinitie Reading Test is administered to each child at Curry School. The beginning second graders are given Primary Form B of the test.

It is divided into two subtests, Vocabulary and Comprehension. The vocabulary section samples the child's ability to recognize or analyze isolated words within a prescribed time allottment. The comprehension section measures the child's ability to read and understand whole sentences and paragraphs, again within a prescribed time.(7)

The Gates-MacGinitie Reading Tests have been standardized by nation-wide testing of 40,000 pupils in thirty-eight communities. (7:3)

The reliability for the test is shown in Table I, p.23.

It is with the results of this test, administered to Group A-multiple grade, in September 1972, and to Group B-segregated, in September 1973, that this research deals.

TABLE I

Means, Standard Deviations, and Reliability Coefficients for Vocabulary and Comprehension Tests, Gates-MacGinitie, Primary B

Test	Mean of X	SD	Alternate Form Reliability Coefficient	Split-half Reliability Coefficient
Vocabulary	27.7	10.1	.87	.93
Comprehension	17.2	7.8	.81	.93

III. DATA COLLECTION PROCEDURE

The data for this study was acquired from the cumulative folders of children at Curry School who met the criteria of membership in the populations from which the samples were drawn. Grade equivalence scores on each of the Gates-MacGinitie subtests had been recorded in each child's file. These were then converted back to raw scores by referring to the Gates-MacGinitie Teacher's Manual. (see Table III, appendix)

When a grade equivalent could have been drawn from more than one raw score, the lower raw score was selected.

IV. RESEARCH DESIGN AND PROCEDURE

This study falls into the catagory of causal- comparative research. It compares the differences in the means of raw scores achieved in two separate areas of reading, vocabulary and comprehension, by two randomly selected groups of children. One group, A-multiple grade, was drawn from a population of children at Curry School who had received first grade reading instruction in a multiple-grade team, August 1971 to May 1972. The other group, B-segregated, was drawn from a population of children at Curry School who received first grade reading instruction in a segregated first grade team, August 1972 to May 1973.

The means of the raw scores achieved on the vocabulary and comprehension subtests of the Gates-MacGinitie Reading Tests were computed, compared and tested for significance by the independent t-test. The hypotheses stated in Chapter I were accepted if there was a significant difference at .05 favoring the organizational plan used for the instruction of Group B-segregated.

CHAPTER IV

FINDINGS

This chapter is limited to the restatement of the hypotheses, the statistical treatment of the data gathered, and the significance of the results of that treatment.

There are two hypotheses being tested, as stated in Chapter I:

1. Second graders, having spent their first year in a segregated first grade, possess greater vocabulary recognition skills than second graders coming from a multiple grade team.

2. Second graders, having spent their first year in a segregated first grade, possess greater reading comprehension skills than second graders coming from a multiple grade team.

I. ANALYSIS TECHNIQUES

The statistical procedures necessary to determine the findings of this study begin with computing the means of the raw scores on the vocabulary subtest of the Gates-MacGinitie Reading Test. Using the formula: $\bar{X} = \frac{\Sigma X}{N}$

Group A- multigrade

$$\bar{X} = \frac{551}{20} = 27.55$$

Group B-segregated

$$\bar{X} = \frac{579}{20} = 28.95$$

(see Table IV, appendix for detailed raw scores and computed data)

This procedure is repeated to find the means of the raw scores on the comprehension test:

Group A-multiple grade

$$\bar{X} = \frac{312}{20} = 15.6$$

Group B-segregated

$$\bar{X} = \frac{350}{20} = 17.5$$

Using the independent t-test, the differences between the means are analyzed to determine significance. (TableII,p28)

TABLE II

The computed data showing the statistical comparison of the means of the raw scores achieved on the vocabulary and comprehension subtests of the Gates-MacGinitie Reading Test Primary Form B by Group A-multiple grade and Group B-segregated.

	Group A-multiple grade			Group B-segregated					
Test	N	Mean	SD	N	Mean	SD	t-ratio	df	P
Vocabulary	20	27.55	13.73126	20	28.95	11.373105	.34226535	38	N.S.
Comprehension	20	15.6	8.8735563	20	17.5	8.3036135	.68148276	38	N.S.

*t-value required at .05 level with 38 df, 2.021

The hypotheses stated in Chapter I are rejected. There is, in fact, no significant difference in the vocabulary skills or in the comprehension skills of second graders having spent their first year in a segregated first grade team than of those having been in a multiple grade primary team.

(see Table IV, appendix for detailed raw scores and computed data)

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

I. SUMMARY

The study was centered around specific groups of children at Curry School in Tempe, Arizona, where a multigrade primary team was replaced by a segregated first grade. The faculty and administration felt that the first graders would make more progress in reading if they were separated from the older children.

The purpose of the study was to compare the effects of these two organizational plans on achievement in vocabulary and comprehension skills in reading.

Two hypotheses have been tested:

1. Second graders, having spent their first year in a segregated first grade, possess greater vocabulary recognition skills than second graders coming from a multiple grade team.

2. Second graders, having spent their first year in a segregated first grade, possess greater reading comprehension skills than second graders coming from a multiple grade team.

From a carefully prescribed population of children who had attended Curry School from the beginning of first grade in 1971, and another carefully prescribed population who began first grade at Curry in 1972, were drawn two randomly

selected groups, A-multiple grade and B-segregated.

The Gates-MacGinitie Reading Test Primary Form B had been administered to each of these groups along with all second graders in the school, at the beginning of their second grade year.

The means of the raw scores on each of two subtests, vocabulary and comprehension, were compared and tested for significance by the t-test.

Findings showed no significant difference in the means for either test. The research hypotheses were rejected.

II. CONCLUSIONS

The computed data did not show a statistically significant difference in the measured reading skills of the two groups. Therefore, it must be concluded that, for the specific population included in this study, the organizational plans, multiple grade primary team and segregated first grade team, did not effect first grade reading progress.

The findings of this study may be generalized only to schools with similar populations and philosophies of reading instruction. That is, to schools from a middle to upper-middle socio-economic community with low minority representation. The reading instruction must be individually paced with the opportunity for each child to progress at his own rate.

This study bears out the impression left by the review of literature in that it shows no best organizational plan for the teaching of reading to first graders.

III. RECOMMENDATIONS

Although the reading progress of those tested was not affected by the change from multiple grade primary teaming to a segregated first grade program, it would seem advantageous to test the organizational plans in other cognitive areas.

From observation of the behavior of the Curry School first grade children, their attitudes toward school and the childrens' self-concepts have improved with the change of organization.

A recommendation would be to select a similar population and to conduct a further study of achievement in all cognitive areas, including reading, and to extend the study to include attitudes toward school and self.

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APPENDIX

TABLE III

Conversion of raw scores to grade equivalents as found in the Teachers Manual of the Gates-MacGinitie Reading Test Primary B

Raw Score	Grade Equivalent
1	--
2	--
3	--
4	--
5	1.2
6	1.3
7	1.4
8	1.4
9	1.5
10	1.6
11	1.6
12	1.7
13	1.8
14	1.9
15	2.1
16	2.2
17	2.3
18	2.4
19	2.5
20	2.5
21	2.6
22	2.7
23	2.8
24	3.1
25	3.4
26	3.6
27	3.7
28	4.0
29	4.3
30	4.5
31	4.7
32	4.9
33	5.1
34	5.4

TABLE IV

Detailed Raw Scores and computed data for Group A-multiple grade and Group B-segregated.

Group A- Multiple grade			Group B-segregated		
Student Number	Raw Score(V)	Raw Score (C)	Student Number	Raw Score(V)	Raw Score(C)
1	22	12	1	13	9
2	10	9	2	42	32
3	48	33	3	30	17
4	3	8	4	35	26
5	43	29	5	47	31
6	42	14	6	10	3
7	40	14	7	26	10
8	37	29	8	44	30
9	22	15	9	13	16
10	20	5	10	28	9
11	15	12	11	40	18
12	30	15	12	41	25
13	44	24	13	35	15
14	43	24	14	13	9
15	13	3	15	42	28
16	46	29	16	27	17
17	24	10	17	20	10
18	18	6	18	25	13
19	13	8	19	18	13
20	18	15	20	30	19
total	551	312		579	350
mean	$\bar{X} = 27.55$	$\bar{X} = 15.6$		$\bar{X} = 28.95$	$\bar{X} = 17.5$

t-ratios t of vocabulary = .34226535 $p > 0.05$
t of comprehension = .68148276 $p > 0.05$

df=38
t-value required at 2.021